

WHAT IS CLAIMED IS:

1. (Currently amended) A pelletized fill material for a halogen lamp comprising rhenium and ~~a halogen~~ bromine.
2. (Cancelled).
3. (Currently amended) The lamp fill material of Claim 2 1 comprising a bromide of rhenium.
4. (Currently amended) The lamp fill material of Claim 2 1 comprising rhenium tribromide.
5. (Currently amended) ~~The lamp fill material of Claim 4~~ A pelletized fill material for a halogen lamp comprising a mixture of a metal and a halide of rhenium.
6. (Original) The lamp fill material of Claim 5 comprising a mixture of rhenium and rhenium tribromide.
7. (Original) The lamp fill material of Claim 1 consisting essentially of rhenium and bromine.
8. (Original) The lamp fill material of Claim 7 consisting essentially of a mixture of rhenium and rhenium tribromide.
9. (Original) A pellet suitable for delivering a predetermined amount of rhenium tribromide into a lamp, said pellet comprising a metal and rhenium tribromide.
10. (Original) The pellet of Claim 9 wherein said metal has a melting temperature greater than about 1000°C and does not react with rhenium tribromide to form a stable bromide.

11. (Original) The pellet of Claim 9 wherein said metal comprises one or more metals from the group consisting of rhenium, palladium, platinum, rhodium, gold, molybdenum, and tungsten.

12. (Original) The pellet of Claim 11 wherein said metal comprises rhenium.

13. (Original) The pellet of Claim 11 wherein said metal comprises palladium.

14. (Original) The pellet of Claim 11 wherein said metal comprises an alloy of two or more metals.

15. (Original) The pellet of Claim 14 wherein said metal comprises an alloy of rhenium and palladium.

16. (Original) The pellet of Claim 11 wherein said metal comprises a mixture of two or more metals.

17. (Original) The pellet of Claim 9 consisting essentially of said metal and rhenium tribromide.

18. (Original) The pellet of Claim 17 wherein said metal has a melting temperature greater than about 1000°C and does not react with rhenium tribromide to form a stable bromide.

19. (Original) The pellet of Claim 17 wherein said metal comprises one or more metals from the group consisting of rhenium, palladium, platinum, rhodium, gold, molybdenum, and tungsten.

20. (Original) The pellet of Claim 19 wherein said metal comprises rhenium.

21. (Original) The pellet of Claim 9 comprising between about zero weight percent and about 25 weight percent rhenium tribromide.

22. (Original) The pellet of Claim 21 comprising about 0.5 weight percent rhenium tribromide.

23. (Original) The pellet of Claim 9 forming a disc.

24. (Original) The pellet of Claim 9 forming a sphere.

25. (Original) The pellet of Claim 9 wherein no dimension of said pellet is greater than about 2mm.

26. (Original) The pellet of Claim 9 suitable for introduction into a lamp through a tube having an inside diameter of about 2 mm.

27. (Original) The pellet of Claim 9 wherein the rhenium tribromide component of said pellet will sublime at temperatures greater than about 200°C.

28. (Original) The pellet of Claim 27 wherein the rhenium tribromide component of said pellet will decompose at temperatures greater than about 400°C.

29. (Original) The pellet of Claim 9 wherein the rhenium tribromide component of said pellet will decompose at temperatures greater than about 400°C.

30. (Original) A pellet suitable for delivering a predetermined amount of a halide of rhenium into the interior of the light emitting chamber of a lamp, said pellet comprising a metal and a halide of rhenium.

31. (Original) The pellet of Claim 30 comprising rhenium tribromide.

32. (Original) The pellet of Claim 30 wherein said metal comprises one or more metals from the group consisting of rhenium, palladium, platinum, rhodium, gold, molybdenum, and tungsten.

33. (Original) The pellet of Claim 32 wherein said metal consists essentially of rhenium.

34. (Original) The pellet of Claim 33 wherein the density of said pellet is between about 50 % and about 100 % of the density of pure rhenium.

35. (Original) The pellet of Claim 33 comprising about 0.5 weight percent rhenium tribromide and about 99.5 weight percent rhenium.

36. (Original) The pellet of Claim 30 comprising a mixture of metal powder and rhenium tribromide powder, wherein said metal does not react with said rhenium tribromide to form a stable bromide.

37. (Original) The pellet of Claim 30 comprising between about 2 μ g and about 2000 μ g rhenium tribromide.

38. (Original) In a method of dosing a lamp with lamp fill material including the step of introducing a pellet comprising the lamp fill material into the interior of the light emitting chamber of the lamp, the improvement wherein the pellet comprises rhenium tribromide.

39. (Original) The method of Claim 38 wherein said pellet consists essentially of rhenium and bromine.

40. (Original) The method of Claim 38 wherein said pellet comprises a metal and rhenium tribromide.

41. (Original) The method of Claim 40 wherein said metal comprises one or more metals from the group consisting of rhenium, palladium, platinum, rhodium, gold, molybdenum, and tungsten.

42. (Original) The method of Claim 38 wherein said lamp is a halogen lamp having a tungsten filament.

43. (Original) In a method of introducing a predetermined amount of rhenium and a halogen into the interior of the light emitting chamber of a halogen lamp, the improvement comprising the step of introducing a pellet comprising rhenium tribromide into the interior of the chamber.

44. (Original) The method of Claim 43 wherein said pellet comprises a metal and rhenium tribromide.

45. (Original) The method of Claim 43 wherein said pellet material consists essentially of rhenium and rhenium tribromide.

Claims 46-67 (withdrawn).

68. (Original) A tungsten halogen lamp comprising:

a sealed light emitting chamber formed from light transmissive material;

a tungsten filament mounted internally of said chamber; and

a pellet internally of said chamber, said pellet comprising rhenium tribromide.

69. (Original) The lamp of Claim 68 wherein said pellet comprises a metal and rhenium tribromide.

70. (Original) The lamp of Claim 69 wherein said metal comprises one or more metals from the group consisting of rhenium, palladium, platinum, rhodium, gold, molybdenum, and tungsten.

71. (Original) The lamp of Claim 70 wherein said pellet consists essentially of rhenium and rhenium tribromide.

72. (Original) The lamp of Claim 70 wherein said pellet consists essentially of palladium and rhenium tribromide.

73. (Original) The lamp of Claim 68 wherein said pellet sublimes at temperatures greater than about 200°C and decomposes at temperatures greater than about 400°C.

74. (Original) The lamp of Claim 68 wherein said pellet is mechanically mounted within the light emitting chamber.

75. (Original) The lamp of Claim 74 wherein said pellet is mechanically secured within a wire coil.

76. (Original) A tungsten halogen lamp comprising:
a sealed light emitting chamber formed from light transmissive material;
a tungsten filament mounted internally of said chamber; and
a pellet internally of said chamber, said pellet comprising a metal and a halide of rhenium.

77. (Original) The lamp of Claim 76 wherein said pellet consists essentially of rhenium and bromine.

78. (Original) The lamp of Claim 76 wherein said pellet consists essentially of rhenium and rhenium tribromide.

79. (Original) The lamp of Claim 76 wherein said pellet generally forms a disc.

80. (Original) The lamp of Claim 76 wherein said pellet is mechanically secured within the chamber.

81. (Currently amended) A halogen lamp comprising a lamp fill pellet mechanically secured in a fixed position within the light emitting chamber of the lamp so

that there is substantially no relative movement between said pellet and said light emitting chamber.

82. (Original) The lamp of Claim 81 wherein said pellet comprises rhenium tribromide.

83. (Original) The lamp of Claim 81 wherein said pellet is mechanically secured within a glass tube integral with the chamber wall.

Claims 84-85 (withdrawn).

86. (Original) A pelletized fill material for a halogen lamp responsive to temperature for releasing bromine and rhenium over time.